

What is claimed is:

1. An optical low pass filter, comprising:

a first birefringence plate that divides an incident ray into two rays; and

a second birefringence plate that divides an incident ray into two rays,

said first birefringence plate and said second birefringence plate being cemented, light passed through said first birefringence plate passing through said second birefringence plate, said first birefringence plate and said second birefringence plate being arranged such that a separation angle θ_s representing a difference between the direction in which said first birefringence plate divides the incident ray and the second direction in which said second birefringence plate divides the incident ray satisfies a condition below:

$$45^\circ < \theta_s < 90^\circ.$$

2. The optical low pass filter according to claim 1, wherein the separation angle θ_s satisfies a following condition:

$$50^\circ < \theta_s < 60^\circ.$$

3. An imaging optical system, comprising:

an image capturing element having a plurality of pixels regularly and two-dimensionally arranged in a horizontal

direction and in a vertical direction;

a photographing lens forming an image on said image capturing element; and

an optical low pass filter including a first birefringence plate that divides an incident ray into two rays and a second birefringence plate that divides an incident ray into two rays, said first birefringence plate and said second birefringence plate being cemented, light passed through said first birefringence plate passing through said second birefringence plate, said first birefringence plate and said second birefringence plate being arranged such that a separation angle θ_s representing a difference between the direction in which said first birefringence plate divides the incident ray and the second direction in which said second birefringence plate divides the incident ray satisfies a condition below:

$$45^\circ < \theta_s < 90^\circ,$$

said low pass filter being arranged to be rotated with respect to the horizontal direction by a predetermined angle $\Delta\theta$.

4. The imaging optical system according to claim 3, wherein the separation angle θ_s satisfies a following condition:

$$50^\circ < \theta_s < 60^\circ.$$

5. The imaging optical system according to claim 3,

wherein the separation angl θ_s is defined by a following equation:

$$\theta_s = |\theta_1 - \theta_2|,$$

θ_1 being an angle in which said first birefringence plate divides the incident beam with respect to the horizontal direction, before said optical low pass filter is rotated, and

θ_2 being an angle in which said second birefringence plate divides the incident beam with respect to the horizontal direction, before said optical low pass filter is rotated.